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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,145	10/22/2001	Brian B. Filippini	3141	4348

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THE LUBRIZOL CORPORATION
Patent Dept. -Patent Administrator-022B
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EXAMINER

JOHNSON, JERRY D

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/036,145	Applicant(s) FILIPPINI ET AL.	
	Examiner Jerry D. Johnson	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1764

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford in view of Forsberg and Schwab.

Ford, U.S. Patent 3,756,794, teach emulsified hydrocarbon fuels suitable for engines of aircraft (for example, jet or turbojet engines), cars (for example, gasoline engines) or trucks or ships (for example, diesel engines). The fuel thus includes diesel, gasoline and kerosene type distillate fuels boiling within the range 20-400°C. The hydrocarbon fuel component of the composition forms more than 75%, preferably more than 90% and more preferably more than 95% of the total composition by weight (column 1, lines 49-58). A wide range of emulsifiers can be employed in the composition (column 1, lines 65-66). The emulsified fuels can also contain a water soluble non-ash forming freezing point depressant. Compounds suitable for this purpose include ammonium salts (for example, ammonium nitrate) or polyols (for example, ethylene glycol or glycerol). Ammonium nitrate has been found to be particularly advantageous. The proportion of depressant may be 0.1% to 10% by weight but preferably is from 0.3% to 0.7% (column 2, lines 15-23). Supplemental additives can also be present. Examples of these are anticorrosion additives and antistatic additives. Glycerol and ethylene glycol are examples of anticorrosion agents. The amount of anticorrosion agent will usually be up to 1.0% by weight (column 2, lines 27-38). While Ford teaches that a wide range of

Art Unit: 1764

emulsifiers can be employed, Ford differs from the instant claims in not disclosing the instantly claimed emulsifiers or organic nitrates.

Forsberg, U.S. Patent 4,447,348, teaches carboxylic solubilizer/surfactant combinations and aqueous systems made from them. More particularly, the solubilizers are made from acylating agents having hydrocarbyl substituents of about 12 to about 500 carbon atoms and N-(hydroxyl-substituted hydrocarbyl) amines (column 1, lines 19-23). These acylating agents have at least one hydrocarbyl-based substituent of about 12 to about 500 carbon atoms. Generally, this substituent has an average of about 20, typically 30, to about 300 carbon atoms; often it has an average of about 50 to about 250 carbon atoms (column 3, lines 22-27). The reaction of the acylating agent with the hydroxyl amine can be carried out at temperatures ranging from about 30° to the decomposition temperature of the reaction components and/or products having the lowest such temperature (column 8, lines 20-24). Often the reaction is carried out under ester-forming conditions and the product thus formed is, for example, an ester, salt, amide, imide, amic ester or mixture of such products (column 3, lines 27-30). In addition to the acylating agent there may also be present in the solubilizer-forming reaction mixture one or more lower molecular weight mono- or poly-carboxylic acid acylating agents of one to about less than 18 carbons such as fatty acids having 10 to about 18 carbon atoms or a tetrapropenyl-substituted succinic anhydride (column 8, lines 50-56). The surfactant can be of the cationic, anionic, nonionic or amphoteric type (column 10, lines 4-5). Of these surfactants, non-ionic surfactants are generally used (column 10, lines 13+). Ethylene oxide/propylene oxide block copolymers are useful non-ionic surfactants (column 10, lines 16-18). The solubilizer/surfactant combinations can be used to incorporate water into hydrocarbyl fuels such as diesel fuel

Art Unit: 1764

(column 15, lines 19-21). Generally these fuel/water combinations contain about 0.2% to about 25% solubilizer plus surfactant combination, about 2% to about 20% water with the balance being fuel and other conventional additives (column 15, lines 28-32).

Schwab, U.S. Patent 5,669,938, teaches that the addition of at least one fuel-soluble organic nitrate ignition improver to a water-in-oil emulsion provides important benefits for reduction of exhaust emissions from diesel engines (column 1, lines 33-39). Preferred are the alkyl nitrates having from 5 to 10 carbon atoms, most especially mixtures of primary amyl nitrates, mixtures of primary hexyl nitrates, and octyl nitrates such as 2-ethylhexyl nitrate (column 3, lines 13-16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the solubilizer/surfactant combination of Forsberg as the emulsifier in an emulsified hydrocarbon fuel as taught by Ford. Additionally, it would have been obvious to add the organic nitrate ignition improver of Schwab to the emulsified fuel as taught by Ford in order to reduce exhaust emissions from diesel engines operating on said fuel.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1764

Claims 1-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-79 of U.S. Patent No. 6,648,929 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because while not of the same scope, the claims of the 6,648,929 patent are directed fuel compositions comprising the same components, i.e., an emulsified water-blended fuel composition comprising a hydrocarbon fuel, water and fuel-soluble salt emulsifiers.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 lacks antecedent basis to define the hydrocarbyl group R as containing "about 500 carbon atoms." Claim 1 limits the hydrocarbyl substituents to a maximum of 500 carbon atoms.

Claims 8 and 13 contain improper Markush groups, i.e., Markush groups are required to recite the closed language "selected from the group consisting of".

Claims 11 and 12 fail to further limit claim 1.

Claim 14 fails to define all of the variables of the recited formula (for example, there is no definition of the capital K variable).

In claims 21-24 the terms "biodegradable resource" and "renewable resources" are indefinite.

Art Unit: 1764

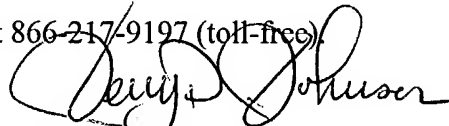
Claims 22-24 are indefinite, i.e., claims 22-24 improperly recite "the hydrocarbon fuel is selected from the group consisting of" the recited elements yet also states that the recited elements are only a certain percentage of "the hydrocarbon fuel."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (571) 272-1448. The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry D. Johnson
Primary Examiner
Art Unit 1764

jdj